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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,198	01/22/2002	Stanley Koziatek	438P944	5073

7590 12/19/2003

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EXAMINER	
FISCHER, JUSTIN R	
ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 12/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/055,198	KOZIATEK, STANLEY
	Examiner	Art Unit
	Justin R Fischer	1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) *7-15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 January 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

   I. Claims 1-6, drawn to a system having a tire and further comprising a rim tape, a strip of sealing tape, and a liquid composition, classified in class 152, subclass 513.

   II. Claims 7-10, drawn to a sealing composition, classified in class 525, subclass 1.

   III. Claims 11-13, drawn to a method of forming a wheel structure comprising a strip of sealing tape and sealing compound, classified in class 156, subclass 110.1.

   IV. Claims 14-15, drawn to a system having a tire and further comprising a rim strip, a valve stem, and a liquid sealing compound, classified in class 152, subclass 513.

2. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination only generically requires a liquid sealant compound (no description of the claimed components in

Invention I). The subcombination has separate utility such as a sealant in additional articles, including pipes and additional elastomeric articles.

3. Inventions I and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the process as claimed can be used to make a materially different product, for example one in which a rim tape is not provided.

4. Inventions I and IV are related as independent inventions, each having a unique and separate means for establishing patentability. In this instance, Invention I requires a tire having a rim tape, a strip of sealing tape, and a liquid sealant composition and invention IV requires a tire having a rim strip, a valve stem, and a liquid sealant. Thus, it is evident that Invention I does not require a valve stem and Invention IV does not require a strip of sealing tape. Thus, the inventions contain different subject matter as pertains to the determination of patentability and as such they are properly restrictable.

5. Inventions II and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination only generically requires a liquid sealant compound (no description of the claimed components in

Invention I). The subcombination has separate utility such as a sealant in additional articles, including pipes and additional elastomeric articles.

6. Inventions II and IV are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination only generically requires a liquid sealant compound (no description of the claimed components in Invention I). The subcombination has separate utility such as a sealant in additional articles, including pipes and additional elastomeric articles.

7. Inventions III and IV are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the process as claimed can be used to make a materially different product, for example one in which a rim tape is not provided.

8. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

9. During a telephone conversation with George McGuire on December 8, 2003 a provisional election was made without traverse to prosecute the invention of a system

having a tire and further comprising a rim tape, a strip of sealing tape, and a sealing compound, claims 1-6. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7-15 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aloy (US 4,824,177) and further in view of Augier (US 4,658,876). As best depicted in Figure 1, Aloy teaches a wheel structure comprising a rim tape or protective disc 27 disposed within the rim channel and a strip of sealing tape or elastic band 26 that completely covers said rim tape, such that the tubeless tire is "sealably mounted" on a conventional rim. While the Aloy fails to suggest the use of a liquid sealing compound, it is well known in the tire industry to use such a compound to optimize air tightness in a tire construction. For example, Augier describes the use of a sealant compound in a region near the bead seat (analogous to inner cavity of claimed invention) and at the base of the rim (analogous to inner channel of claimed invention). It is emphasized that Augier specifically states "a layer of suitable sealant at the juncture....renders the joints airtight" (Abstract). Thus, since Aloy desires a "sealably mounted" wheel structure, one of ordinary skill in the art at the time of the invention would have found it obvious to

include a sealing compound within the tire of Aloy in order to optimize the seal between the tire and the rim as is well known in the tire industry and disclosed by Augier.

As to the limitation "for converting and retrofitting a bicycle wheel", this language represents the intended use of the system. In any event, Aloy is directed to wheel structures having multiple radial spikes and incorporating tubeless pneumatic tires and one of ordinary skill in the art at the time of the invention would have readily appreciated such a design in a bicycle wheel.

Regarding claim 3, while Aloy fails to expressly describes a valve structure, it is extremely well known that valves are extensively used in the tire industry for inflation purposes and as such, one of ordinary skill in the art at the time of the invention would have readily appreciated and expected a valve assembly to have been associated with the wheel structure of Aloy.

12. Claims 2, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aloy and Augier as applied in claim 1 above and further in view of either one of Wong (EP 0798140) or Dowel (WO 96/05048). As set forth in the previous paragraph, Aloy in view of Augier suggests a wheel structure comprising a rim tape, a strip of sealing tape that covers said rim tape, and a liquid sealing composition. In describing the sealant composition, Augier suggests the use of a wide variety of sealant/puncture compositions, including those disclosed in a multiple United States patents (Column 5, Lines 42-53). While the noted United States patents fails to suggest the claimed sealant composition, Augier does state that "it is apparent that possibly other types of sealing materials having acceptable physical properties may also be used". In this

regard, the claimed sealant composition including liquid latex, water, and propylene glycol represents a well known sealant/puncture composition that is extensively used in the tire industry, as shown for example by Wong (Abstract) and Dowel (Abstract and Page 2, Lines 30+). Regarding the specific amounts of each component, it would have been within the purview of one of ordinary skill in the art at the time of the invention to select the appropriate amounts of each component as desired without undue experimentation. Absent any conclusive showing of unexpected results, the selection of the claimed sealant composition would have been obvious to one of ordinary skill in the art at the time of the invention in view of its extensive use in similar applications in the tire industry as previously noted.

Regarding claims 4 and 5, Wong and Dowel suggest the use of "aggregate" or ground material within the sealant composition (functions as a filler). Wong suggests the use of differently sized ground rubber materials (Page 3, Lines 39-44) and Dowel suggests the use of a wide variety of fillers, including mineral or comminuted or finely divided rubber particles, wherein said rubber particles have a diameter on the order of 0.04 mm (Page 3, Lines 5-19). One of ordinary skill in the art at the time of the invention would have found it obvious to include aggregate material having a diameter between 0.15 and 0.60 mm in view of the disclosures noted above absent any conclusive showing of unexpected results. In particular, the specific selection of a particle size would be dependent on the base composition used and the use or non-use of additional fillers.

13. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aloy, Augier, Wong, and Dowel as applied in claim 4 above and further in view of Walther (US 6,319,969). As noted above, Wong and Dowel have been applied to evidence the common use of sealant compositions formed of water, latex, and propylene glycol. In addition, the references suggest the use of common additives, including fillers such as ground rubber particles and mineral particles. While the references fail to expressly suggest the use of cornmeal particles as a filler, it is clearly evident that the references recognize the general use of a variety of fillers. In this regard, cornmeal is recognized as an organic filler used in sealant compositions, as shown for example by Walther (Column 13, Lines 45-60 and Column 21, Lines 60-65). It is noted that Walther discloses the use of wide variety of fillers for such compositions, including mineral particles and cornmeal particles, suggesting that they are recognized within the same class of fillers used in sealant compositions. One of ordinary skill in the art at the time of the invention would have found it obvious to use the claimed, well known aggregate material in the sealant composition taught by Wong and Dowel in view of the recognition that it (cornmeal) represents a common organic filler used in sealant compositions absent any conclusive showing of unexpected results.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tomoda (EP 0240241), Nakasaki (DE 3715669), and Igarashi (JP 10-138702) are directed to tire constructions having multiple tape layers disposed within the tire cavity in the rim portion of the tire.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **(703) 605-4397** (if after December 18, 2003, (571) 272-1215). The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Justin Fischer

December 10, 2003

JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300